

ATTACHMENT - CLAIMS LISTING

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) A process for the recovery of nickel and cobalt from laterite ores, the process including the steps of:

a) beneficiating the ore by scrubbing, screening and classification to separate it into a beneficiated upgraded ore fraction and a coarse, siliceous low grade rejects fraction which is substantially free from fines and clay materials;

b) separately processing the upgraded ore fraction for the recovery of nickel and cobalt; and

c) subjecting the low grade rejects fraction to a heap leach process with an acid supplemented solution to create a heap leachate for further nickel and cobalt recovery processing.

2. (Original) A process according to claim 1, wherein the low grade rejects fraction is further treated as part of the beneficiation process to remove substantially all the fines and clay materials.

3. (Original) A process according to claim 1, wherein the nickel and cobalt is recovered from the upgraded ore fraction by high pressure acid leaching or atmospheric pressure agitation leaching, or a combination of both, to produce a leach solution for further processing.

4. (Original) A process according to claim 1, wherein the heap leachate from the low grade rejects fraction is blended with the leach solution from the acid leaching of the upgraded fraction to produce a blended leachate.
5. (Original) A process according to claim 1, wherein the low grade rejects heap leachate is further processed for nickel and cobalt recovery, independently from the leach solution from the upgraded ore fraction.
6. (Original) A process according to claim 4 and 5 wherein the nickel and cobalt is recovered from either the blended leachate or the low grade rejects heap leachate by precipitation of a sulphide or mixed hydroxide, treatment by solvent extraction, by ion exchange or by other known metallurgical processing routes.
7. (Currently Amended) ~~A~~The process for the recovery of nickel and cobalt from laterite ores, the process including according to claim 1, further comprising the steps of:
 - ~~a)-i)~~ separating the ore into a limonite fraction and saprolite fraction; and
 - ~~b)-ii)~~ forming separate heaps of the low grade limonite and the low grade saprolite rejects fractions;

wherein step i) precedes step a) and step ii) occurs between steps b) and c), and

wherein the beneficiating step a) comprises beneficiating the limonite and saprolite fractions independently by scrubbing, screening and classification of each ore fraction to produce upgraded limonite and saprolite ore fractions and coarse, siliceous low grade limonite and saprolite rejects fractions, the siliceous low grade limonite and

saprolite rejects fractions which are being substantially free from fines and clay materials; material,

wherein the processing step b) comprises e) independently or together processing the limonite and saprolite upgraded- upgrading ore fractions; and
d) ~~forming separate heaps of the low grade limonite and the low grade saprolite rejects fractions; and~~

e) wherein the subjecting step c) comprises subjecting the separate low grade limonite and the low grade saprolite rejects heaps to a heap leach process with an acid supplemented solution to create separate limonite and saprolite heap leachates for further nickel and cobalt recovery processing.

8. (Original) A process according to claim 7, wherein the nickel and cobalt are recovered from the upgraded ore fractions by processing them together or independently by high pressure acid leaching, atmospheric pressure agitation leaching or a combination of both, to produce a leach solution for further processing.

9. (Original) A process according to claim 7, wherein the limonite and saprolite heap leachates are blended with the leach solution from the acid leaching of the upgraded ore fractions to create a blended leachate for further nickel and cobalt recovery processing.

10. (Original) A process according to claim 7 wherein the limonite and saprolite heap leachates are further processed either independently or together for nickel and cobalt recovery, separately from the leach solution from the upgraded ore fraction.

11. (Original) A process according to claim 10 wherein the nickel is recovered from the blended leachate or the limonite and saprolite heap leachates by precipitation as a sulphide or mixed hydroxide, treatment by solvent extraction, by ion exchange or by other known metallurgical processing routes.
12. (Original) A process according to claim 7 wherein the limonite heap leachate from the low grade limonite rejects heap is passed through the whole, or a part of the low grade saprolite rejects heap to assist in neutralizing the acid content and precipitate some of the dissolved iron in the resultant heap leachate.
13. (Original) A process according to claim 12 wherein the resultant heap leachate from the low grade rejects fraction is blended with the leach solution from the acid leaching of the upgraded fraction to produce a blended leachate.
14. (Original) A process according to claim 12 wherein the resultant leachate is further processed for nickel and cobalt recovery, independently from the leach solution from the upgraded ore fraction.
15. (Previously Presented) A process according to claim 13 wherein the nickel and cobalt is recovered from the blended leachate by precipitation of a sulphide or mixed hydroxide, treatment by solvent extraction, by ion exchange, or by other known metallurgical processing routes.

16. (Previously Presented) A process according to claim 1 wherein the acid supplemented solution is a solution of acidified water, sea water, underground brine or acidified waste solution for the acid leach of the upgraded ore fraction.
17. (Original) A process according to claim 1 wherein the beneficiation rejects fraction has from about 0.3% to 0.7% nickel and 0.01% to 0.03% cobalt.
18. (Canceled).
19. (Previously Presented) A process according to claim 5 wherein the nickel and cobalt is recovered from the low grade rejects heap leachate by precipitation of a sulphide or mixed hydroxide, treatment by solvent extraction, by ion exchange or by other known metallurgical processing routes.
20. (Previously Presented) A process according to claim 14 wherein the nickel and cobalt is recovered from the resultant heap leachate by precipitation of a sulphide or mixed hydroxide, treatment by solvent extraction, by ion exchange, or by other known metallurgical processing routes.